

STATEMENT OF ANTHONY J. BRODERICK, ASSOCIATE ADMINISTRATOR FOR
REGULATION AND CERTIFICATION, FEDERAL AVIATION ADMINISTRATION,
BEFORE THE HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,
SUBCOMMITTEE ON AVIATION, CONCERNING AGING AIRCRAFT.
SEPTEMBER 17, 1991.

Mr. Chairman and Members of the Subcommittee:

I welcome the opportunity to appear before the Subcommittee to discuss the FAA's efforts to address problems associated with aircraft that are exceeding the manufacturer's design life objectives, or aging aircraft. Since the tragic Aloha accident in 1988, the FAA has put in place new and aggressive programs to respond to this issue, to ensure that aging aircraft are adequately inspected and maintained. We must do all we can to be sure another "Aloha accident" never happens.

We have had the opportunity to review the newly released Government Accounting Office's report on aging aircraft, dated May 1991. While much of the survey data in the report is very useful, the overall message sent by the report is off the mark. To correct this, I would like to briefly respond to certain portions of the GAO report and provide this Subcommittee a different perspective on FAA's programs in the area of aging aircraft maintenance.

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In its report on aging aircraft, GAO makes the following significant findings and recommendations--

- The 1994 deadline may not provide industry enough time to comply with the Airworthiness Directives (AD).
- FAA oversight of industry AD compliance is inadequate and more active FAA monitoring is necessary.
- The FAA needs to explore options for alternative means of AD compliance.

In brief, Mr. Chairman, we do not agree with GAO on these findings, for reasons I will discuss.

BACKGROUND

The FAA responded very quickly to new issues of aging aircraft brought to light by the Aloha accident. Within days of the accident we issued an airworthiness directive limiting the cabin pressure differential and requiring lap joint inspections for all "Aloha" model aircraft. In June 1988, we held a conference to look into issues related to aging aircraft. In 1988, we also established the Airworthiness Assurance Task Force (AATF). The AATF is an international body whose membership includes aircraft

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operators, manufacturers and aviation associations and has made valuable recommendations to us on matters relating to aging aircraft.

Based on the findings from our June 1988 conference and AATF recommendations, the FAA determined that inspection alone would not adequately assure the continued airworthiness of aging aircraft. Therefore, we concluded it was necessary to issue ADs calling for the repair or replacement of certain aircraft components on aging aircraft.

An aggressive 4-year schedule for complying with the new ADs was adopted with industry input and public consultation with hundreds of individuals. Since March 1990, structural ADs have been issued for the majority of Boeing, Douglas and Lockheed aircraft. We are currently working on additional ADs for a few remaining aircraft, and on ADs for dealing with problems of airframe corrosion. We expect that all structural and corrosion-related ADs will be completed and issued by January 1992.

To provide the Subcommittee an idea of the scope of aging aircraft-related maintenance, between now and 1994, we currently estimate that structural ADs will affect over 1,500 aircraft, and corrosion ADs will impact over 2,900 of this Nation's 4,100 transport aircraft.

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PRACTICALITY OF 1994 DEADLINE

We do not believe the 1994 deadline is an unreasonable goal. This date was adopted as a result of the 1988 conference on aging aircraft and the findings of the AATF. Further, the ADs were published in the Federal Register as a proposal, and finalized only after an opportunity for full public comment. Generally, the majority of commenters believed that 1994 was an attainable and realistic goal.

In its report, GAO concluded that the availability of parts, maintenance space and mechanics will now prevent compliance with the 1994 date. Information available to the FAA, however, suggests that problems of parts have, for the most part, now been resolved and should not substantially affect efforts to comply with our ADs. There remains an industry-wide shortage of maintenance technicians and facilities, but a wide variety of programs and new business ventures are rapidly closing these gaps. We, therefore, believe that GAO's information is somewhat out-dated. More recent information indicates to us that timely compliance continues to be an attainable goal.

FAA IS CLOSELY MONITORING AD COMPLIANCE

In its report, GAO questions whether the FAA is adequately

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monitoring industry efforts to comply with maintenance schedules for aging aircraft.

I can assure you, Mr. Chairman, that the FAA has in place effective programs for verifying AD compliance, and that we are closely monitoring aging aircraft-related maintenance. All of our principal maintenance inspectors are working with airlines to gather compliance data and to report back to our field programs divisions. Later this year, we expect to complete a data base on every aircraft operated by United States airlines and how each airplane they operate will comply with these ADs. Any problems that show up will be dealt with promptly, and we will do all we can to ensure these data are maintained current. We cannot, of course, guarantee this Subcommittee that every airline will easily comply with our requirements on time. What I can promise, however, is that FAA will do all in its power to monitor their compliance plans and facilitate their compliance efforts.

One example of our commitment to monitor aging aircraft is our National Work Program. This Program directs for FY 91 that our field maintenance inspectors perform Structural Spot Inspections on individual aircraft and AD Verification Inspections of every aircraft operator. In addition to verifying AD compliance, this Program assures that a balanced look at the soundness of the entire aviation community is accomplished through very specific inspections. Another example is our inclusion of aging aircraft

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evaluations as part of our National Aviation Safety Inspection Program (NASIP). These evaluations, including hands-on inspections, are conducted by experienced FAA airworthiness inspectors and engineers.

We have also made progress in providing our inspection staff the necessary tools and expertise for monitoring compliance. Specifically, we have taken steps to better train our field maintenance inspectors in areas relating to aging aircraft maintenance. The FAA Academy at our Aeronautical Center in Oklahoma City currently offers two courses in nondestructive testing and will add two advanced courses in ultrasonic and eddy current testing this September. We are also cooperating with the U.S. Navy to put on special aging aircraft corrosion seminars at various locations across the country. Additional seminars are planned for FY 92. These courses and seminars will keep our inspectors current on new technology and make them better able to do their jobs.

In addition to training, we are also making progress in increasing our inspection workforce to provide a greater surveillance capability in this area. Nationwide, the FAA currently has 1,154 field maintenance inspectors who devote a portion of their time to issues relating to aging aircraft. By the end of this fiscal year, we expect to have 1,262 inspectors on-board, and for FY 92 we seek to raise our field maintenance inspector staff to 1,310. This represents a 37% increase over our staffing of

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951 inspectors in 1988, an effort for which we appreciate the strong support we have received from this Subcommittee.

NO NEED EXISTS TO EXPLORE ALTERNATIVE MEANS OF COMPLIANCE

As I mentioned earlier, we believe the current compliance schedule is workable. Thus, we do not believe it is necessary for the FAA to consider alternative means of AD compliance as GAO suggests. In spite of the magnitude of this effort, we believe the airlines can successfully comply with the terms of our ADs by the 1994 deadline.

The problems with the availability of parts and shortages of technicians and facilities appear to be resolving themselves, and they should not prevent timely compliance with our ADs. We, therefore, do not expect, and are not prepared to grant, the large number of waivers apparently anticipated by GAO.

Of more concern to me as a regulator is that, from this GAO Report, a message will be sent to those who would go slowly -- a message to industry that either the Congress or the FAA is prepared to permit slow compliance with these safety rules. For industry to relax their compliance efforts in this belief would, I believe, be a serious mistake. Neither the FAA nor, I suspect, our Congressional oversight Committees are of the opinion that compliance with these important safety rules should be anything

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but aggressive. For an airline to do less would not be in the public interest.

If, however, an aircraft operator were unable to meet the established timetable and sought an alternate means of compliance, or an extension, we are obliged to consider such requests on a case-by-case basis. Operators should expect that granting such requests will be a rare exception and only for extraordinarily good reasons. It certainly should not be expected as routine.

Before concluding, Mr. Chairman, I would like to briefly discuss FAA's efforts concerning to aging aircraft, which go beyond 1994. Through our research and development programs, we are seeking new knowledge of the problems and their solutions that relate to aging aircraft.

The FAA has established a comprehensive National Aging Aircraft Research Program (NAARP) for researching the airworthiness of existing as well as future transport aircraft. This is the largest program in our aircraft safety research area. The NAARP directs exploration in such areas as material fracture and fatigue, human factors, maintenance and inspections. Significantly, our research program also incorporates a transfer of technology with the Departments of Defense and Energy, and NASA.

I am pleased to report that we are already receiving dividends from our R&D efforts. For example, the cooperative FAA and U.S.

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Navy corrosion seminars for FAA inspection staff have benefited from knowledge acquired through recent R&D efforts. Also, we have developed a full scale fuselage panel test facility for testing fatigue and fractures under pressurized conditions at the FAA Technical Center in New Jersey.

R&D efforts are also underway in the the areas of fatigue and fracturing. One study will help us understand the interaction between mechanical fatigue and corrosion. Another R&D study is researching human factors, including the effects of work environments and inspection procedures, which contribute to errors in aircraft inspection.

In closing, Mr. Chairman, I would like to thank the Subcommittee for the opportunity to highlight our comprehensive programs for addressing the serious and complex issues relating to aging aircraft and to respond to the recent GAO report on this subject.

That completes my prepared statement. I would be pleased to answer any questions you may have at this time.